# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/643,584 | 08/19/2003 | Everett Sherwood | CML00562N (78250) | 4002 |

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| EXAMINER |
|---|
| RAYYAN, SUSAN F |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2167 | |

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | | Application No. | Applicant(s) |
|---|---|---|---|
| **Office Action Summary** | | 10/643,584 | SHERWOOD, EVERETT |
| | | Examiner | Art Unit |
| | | Susan F. Rayyan | 2167 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>08192003</u>.

2a)☐ This action is **FINAL**.     2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-42</u> is/are pending in the application.

    4a) Of the above claim(s) <u>15-24 and 33-42</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14 and 25-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>19 August 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>05072004</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

## DETAILED ACTION

1.      Claims 1-42 are pending.

### *Election/Restrictions*

2.      Restriction to one of the following inventions is required under 35 U.S.C. 121:

I.      Claims 1-14,25-32, drawn to reconstructing a database structure,

classified in class 707, subclass 101.

II.      Claims 15-19, 33-37, drawn to using a bitmap as a control structure,

classified in class 707, subclass 1.

III.      Claims 20-24,38-42, drawn to generating an object for a linkage, classified

in class 707, subclass 102.


The inventions are distinct, each from the other because of the following reasons:

Inventions I, II and III are related as subcombinations disclosed as usable

together in a single combination.  The subcombinations are distinct if they do not

overlap in scope and are not obvious variants, and if it is shown that at least one

subcombination is separately usable.  In the instant case, subcombination I has

separate utility such as restructuring a database structure, subcombination II has a

separate utility such as using a bitmap as a control structure to customize a

configuration of a domain structure and subcombination III has separate utility such as

generating an object for linkage identifying an implicit relationship of a data structure.

See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for group I , II is not required for the other group, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes is proper.

During a telephone conversation with Mr. Steven Parmelee, Registration Number 28,790 on April 6, 2006 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-14, 25-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1542 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### *Information Disclosure Statement*

3.      The information disclosure statement (IDS) submitted on May 7, 2004 was filed

with the original papers.  The submission is in compliance with the provisions of 37

CFR 1.97.  Accordingly, the information disclosure statement is being considered by the

examiner.

### *Claim Rejections - 35 USC § 102*

4.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-14, 25-32 are rejected under 35 U.S.C. 102(e) as being anticipated**

**by United States Patent Number 6,704,747 issued to Joseph Shi-Piu Fong**

**("Fong").**


**As per claims 1,25** Fong anticipates:

A method for reconstructing a database structure comprising:

providing a database structure having a domain structure (column 6, lines 40-50);

providing data (column 3, lines 28-36);

and reconstructing the database structure into a transformed database structure

comprising generating a plurality of structures, the plurality of structures comprising

structures generated as a function of the domain structure, and structures generated as

a function of the data (column 7, lines 25-28).

Fong teaches providing a database structure having a domain structure;

providing data, and reconstructing the database structure into a transformed database

structure comprising generating a plurality of structures, the plurality of structures

comprising structures generated as a function of the domain structure, and structures

generated as a function of the data (column 3, lines 28-36, column 6, lines 40-50 and

column 7, lines 25-28).

**As per claims 2,26**, same as claim arguments above and Fong anticipates:

wherein said domain structure is selected from the group consisting of relational

metaphors, object-based metaphors, network metaphors, hierarchical metaphors, and

combination thereof (column 6, line 66 –column 7, line 7).

**As per claims 3,27** same as claim arguments above and Fong anticipates:

generating a structure for domain values (column 9, lines 26-27);

generating a structure for domain linkages (column 13, lines 14-26);

generating a structure for domain elements (column 12, lines 15-25);

generating a structure for domain entities (column 12, lines 39-43);

and generating a structure for domain relationships (column 9, lines 13-15).

**As per claims 4,28** same as claim arguments above and Fong anticipates:

wherein said reconstructing further comprises: generating a structure for instances of

data records; and generating a structure for instances of binary relations (column 21,

lines 24-37).

**As per claim 5** same as claim arguments above and Fong anticipates:

method of claim 4 wherein said reconstructing further comprises: generating individual

structures for data types (column 9, lines 11-12).

**As per claim 6** same as claim arguments above and Fong anticipates:

generating a structure for domain values reference (column 9, lines 26-27).

**As per claims 7,29** same as claim arguments above and Fong anticipates:

generating an object control structure (column 8, lines 17-18,27-28).

**As per claims 8,30** same as claim arguments above and Fong anticipates:

generating a second object control structure (column 8, lines 17-26).

**As per claims 9,31** same as claim arguments above and Fong anticipates:

performing at least one of a logical operation and set operation on said object control

structure and said second object control structure (column 8, lines 18-20).

**As per claims 10,13,32** same as claim arguments above and Fong anticipates:

manipulating said database structure by modifying said object control structure (column

8, lines 18-22).

**As per claims 11** same as claim arguments above and Fong anticipates:

wherein said manipulating does not change said database structure (column 8, lines 18-

20).

**As per claims 12** same as claim arguments above and Fong anticipates:

wherein said manipulating does not require authorization from a database management

system (column 8, lines 18-20).

**As per claims 14,** same as claim arguments above and Fong anticipates:

wherein said manipulating does not change said data (column 8, lines 18-22).

## Contact Information

5.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Susan Rayyan whose telephone number is (571) 272-

1675. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Breene can be reached on (571) 272-4107. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-

9306.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Rayyan

April 17, 2006

SHAHID ALAM
PRIMARY EXAMINER